of the deep seabed to which the recovery plan applies and the amount of funds estimated by the Administrator to be required to initiate commercial recovery of hard mineral resources within the time limit established by the Administrator. However, required expenditures will not be established at a level which would discourage commercial recovery or operational efficiency.

(b) To meet the diligence requirement, the applicant must propose to the Administrator an estimated schedule of activities and expenditures pursuant to § 971.203(b)(2). The schedule must show, and the Administrator must be able to make a reasonable determination, that the applicant can reasonably develop the resources in the permit area within the term of the permit. There must be a reasonable relationship between the size of the recovery area and the financial and technological resources reflected in the application. The permittee must initiate the recovery of nodules in commerical quantities within ten years of the issuance of the permit unless this deadline is extended by the Administrator for good cause.

(c) Once commercial recovery is achieved, the permittee must, within reasonable limits and taking into consideration all relevant factors, maintain commercial recovery throughout the period of the permit. However, the Administrator will, for good cause shown, authorize temporary suspension of commercial recovery activities. The duration of any suspension will not exceed one year, unless the Administrator determines that conditions justify an extension of the suspension.

(d) Ultimately, the diligence requirement will involve a retrospective determination by the Administrator, based on the permittee's reasonable conformance to the approved recovery plan. This determination, however, will take into account the need for some degree of flexibility in a recovery plan. It also will include consideration of the needs and stage of development of the permittee based on the approved recovery plan; legitimate periods of time when there is no or very low expenditure; and allowance for a certain degree of flexibility for changes encoun-

tered by the permittee in market conditions or other factors.

(e) The permittee must submit a report annually reflecting its conformance to the schedule of activities and expenditures contained in the permit and its associated recovery plan. In case of any changes requiring a revision to an approved permit and recovery plan, the permittee must advise the Administrator in accordance with § 971.413.

Subpart F—Environmental Effects

§ 971.600 General.

The Act contains several provisions which relate to environmental protection. For example, section 105(a)(4) requires that, before the Administrator may issue a commercial recovery permit, he must find that the commercial recovery proposed in the application cannot reasonably be expected to result in a significant adverse environmental effect. In addition, each permit issued must contain TCRs which prescribe actions the permittee must take in the conduct of commercial recovery activities to assure protection of the environment (section 109(b)). The Act also provides for modification by the Administrator of any TCR if relevant data and information indicate that modification is required to protect the quality of the environment (section 105(c)(1)(B)). The Administrator also may order an immediate suspension or modification of activities (section 106(c)), or require use of best available technologies (section 109(b)), to prevent a significant adverse environmental effect. Furthermore, each permit issued under the Act must require the permittee to monitor the environmental effects of commercial recovery activities in accordance with guidelines issued by the Administrator, and to submit information the Administrator finds necessary and appropriate to assess environmental effects and to develop and evaluate possible methods of mitigating adverse effects (section 114).

§ 971.601 Environmental requirements.

Before issuing a permit for the commercial recovery of deep seabed hard mineral resources, the Administrator must find that:

(a) The issuance of a permit cannot reasonably be expected to result in a significant adverse environmental effect, or, if there is insufficient information to make that determination, that no irreparable harm will result during a period when monitoring of commerical recovery is undertaken to gather sufficient information in order to determine the potential for or occurrence of any significant adverse environmental effect. In examining this issue, NOAA will give consideration to the following Ocean Discharge Criteria of the Clean Water Act (40 CFR part 125, subpart M), as they may pertain to discharges and other environmental perturbations related to the commercial recovery operations:

(1) The quantities, composition and potential for bioaccumulation or persistence of the pollutants to be discharged;

(2) The potential transport of such pollutants by biological, physical or chemical processes;

(3) The composition and vulnerability of the biological communities which may be exposed to such pollutants including the presence of unique species or communities of species, the presence of species identified as endangered or threatened pursuant to the Endangered Species Act, or the presence of those species critical to the structure or function of the ecosystem such as those important for the food chain;

(4) The importance of the receiving water area to the surrounding biological community, including the presence of spawning sites, nursery/forage areas, migratory pathways, or areas necessary for other functions or critical stages in the life cycle of an organism;

(5) The existence of special aquatic sites including but not limited to marine sanctuaries and refuges, parks, national and historic monuments, national seashores, wilderness areas and coral reefs;

(6) The potential impacts on human health through direct and indirect pathways;

(7) Existing or potential recreational and commercial fishing, including finfishing and shellfishing;

(8) Any applicable requirements of an approved Coastal Zone Management plan;

(9) Such other factors relating to the effects of the discharge as may be appropriate;

(10) Marine water quality criteria developed pursuant to section 304(a)(1) of the Clean Water Act; and

(b) The applicant has an approved monitoring plan (§971.603) and the resources and other capabilities to implement it.

§971.602 Significant adverse environmental effects.

(a) *Determination of significant adverse environmental effects.* The Administrator will determine the potential for or the occurrence of any significant adverse environmental effect or impact (for the purposes of sections 103(a)(2)(D), 105(a)(4), 106(c) and 109(b) (second sentence) of the Act), on a case-by-case basis.

(b) *Basis for determination.* Determinations will be based upon the best information available, including relevant environmental impact statements, NOAA-collected data, monitoring results, and other data provided by the applicant or permittee, as well as consideration of the criteria in §971.601(a).

(c) *Related considerations.* In making a determination the Administrator may take into account any TCRs or other mitigation measures.

(d) *Activities with no significant adverse environmental effect.* NOAA believes that exploration-type activities, as listed in the license regulations (15 CFR 970.701), require no further environmental assessment.

(e) *Activities with potential for significant adverse environmental effects.* NOAA research has identified at-sea testing of recovery equipment, the recovery of manganese nodules in commercial quantities from the deep seabed, and the construction and operation of commercial-scale processing facilities as activities which may have some potential for significant adverse envirnomental effects.

(f) *Related terms, conditions and restrictions.* Permits will be issued with TCRs containing environmental requirements with respect to protection (pursuant to §971.419), mitigation (pursuant to §971.419), or best available technology requirements (pursuant to